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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,464	08/01/2001	Udo Heider	MERCK-2295	2894

23599 7590 05/07/2003

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EXAMINER

TSANG FOSTER, SUSY N

ART UNIT	PAPER NUMBER
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1745

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DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS3

Office Action Summary

Applicati n N .

09/918,464

Examiner

Susy N Tsang-Foster

Applicant(s)

HEIDER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed on 8-19-2002 has been considered by the Examiner.

Specification

3. Applicant is advised on how to arrange the content of the specification.

The specification currently lacks the appropriate headers. Below is a description given for each header. The applicant is encouraged to insert the appropriate headers where applicable into the filed specification.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading.

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

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- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chan et al. ("Trifluoromethyl-substituted fluorophosphates and fluoroarsenates", Canadian Journal of Chemistry, vol. 46 (1968), pp. 1237-1248).

See p. 1238, first column; page 1244, second column; and page 1247 of the reference.

6. Claims 1, 4, 5, 8-11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by the Chemical Abstract for Pavlenko et al. "Reaction of tris(perfluoroalkyl)phosphine oxides and tris(perfluoroalkyl)difluorophosphoranes with fluoride ion" in Zhurnal Obshchei Khimii (1989), 59(3), pp. 528-534.

It is noted a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In claim 13, the intended use of an electrolyte comprising a fluoroalkylphosphate in solution for a primary battery, secondary battery, capacitor, supercapacitor or galvanic cell is not given patentable weight.

The Chemical Abstract for Pavlenko et al. disclose benzenediazonium, trifluorotris(pentafluoroethyl)phosphate (1-) given by the formula

$[4\text{-XC}_6\text{H}_4\text{N}_2]^+[\text{R}_3\text{PF}_3]^-$ where X is Cl, Me, or NO₂ and R is C₂F₅ or C₃F₇.

The phosphate product is obtained by diazotization of 4-XC₆H₄NH₂ (X=Cl, Me, NO₂) and subsequent reaction with $\text{K}^+[\text{R}_3\text{PF}_3]^-$ where R is C₂F₅ or C₃F₇. The abstract discloses

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using ether as a solvent for chemical synthesis of $K+[R_3PF_3]^-$ which an aprotic solvent and the phosphate product in ether would function as an electrolyte.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by the Chemical Abstract for Jander et al. "Formation of trifluoromethylated fluorophosphates by reaction of trimethyltrifluoromethyltin with phosphorus (V) fluoride" in Justus Liebigs Annalen der Chemie (1969), 726, p. 19-24.

The Chemical Abstract for Jander et al. disclose formation of $[Ph_4As+[PF_5CF_3]^-]$ and $[Ph_4As]+[PF_4(CF_3)_2]^-$.

8. Claims 1, and 12-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Heider et al. (US 6,423,454 B1).

Heider et al. ('454) disclose an electrolyte for batteries, capacitors, supercapacitors (see abstract) comprising a salt of the general formula $M^{x+}[EZ]^{y-}_{x/y}$ where x, y are 1, 2, 3, 4, 5, 6, and M^{x+} is a metal ion that is monovalent, divalent, trivalent, tetravalent, pentavalent, or hexavalent and E can be $PR_1R_2R_3R_4R_5$ and Z can be $CR_6R_7R_8$ (col. 6, lines 30-67). Lithium electrolyte salts are commonly used in concentrations from 0.01 to 3 mol/l, 0.01 to 2 mol/l or 0.1 to 1.5 mol/l (col. 12, lines 17-25).

9. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Heider et al. (US 2002/0001755 A1).

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived

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from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

See paragraphs 162-178 and paragraphs 204-227 of the reference.

10. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Schmidt et al. (US 2002/0012850 A1).

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

See paragraphs 63-77, 106-163, and 190-210 of the reference.

11. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Schmidt et al. (US 2002/0015884 A1).

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

See paragraphs 9-21, 28-44, 109-123, and 152-157 of the reference.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. ("Trifluoromethyl-substituted fluorophosphates and fluoroarsenates", Canadian Journal of Chemistry, vol. 46 (1968), pp. 1237-1248).

The product by process limitation of claim 11 is not given patentable weight.

The product-by-process limitation of claim 11 is not given patentable weight since the courts have held that patentability is based on a product itself, even if the prior art product is made by a different process (see In re Thorpe, 227 USPQ 964, (CAFC 1985), In re Brown, 173 USPQ 685 (CCPA 1972), and In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983)).

Chan et al. disclose the synthesis for $[(CH_3)_3Sn]^+[CF_3PF_5]^-$, $[(CH_3)_3Sn]^+[(CF_3)_3PF_3]^-$ and $[(CH_3)_3Sn]^+[(CF_3)_4PF_2]^-$ (See p. 1238, first column; page 1244, second column; and page 1247 of the reference).

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Chemical Abstract for Jander et al. "Formation of trifluoromethylated fluorophosphates by reaction of trimethyltrifluoromethyltin with phosphorus (V) fluoride" in Justus Liebigs Annalen der Chemie (1969), 726, p. 19-24.

The product by process limitation of claim 11 is not given patentable weight.

The product-by-process limitation of claim 11 is not given patentable weight since the courts have held that patentability is based on a product itself, even if the prior art product is made by a different process (see In re Thorpe, 227 USPQ 964, (CAFC 1985), In re Brown, 173 USPQ 685 (CCPA 1972), and In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983)).

The Chemical Abstract for Jander et al. disclose formation of $[\text{Ph}_4\text{As}^+[\text{PF}_5\text{CF}_3]^-]$ and $[\text{Ph}_4\text{As}]^+ [\text{PF}_4(\text{CF}_3)_2]^-$.

Double Patenting

15. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 09/877,259. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims 1-11 disclose all the limitations of claim 1 and anticipate instant claim 1.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications should be directed to examiner Susy Tsang-Foster, Ph.D. whose telephone number is (703) 305-0588. The examiner can normally be reached on Monday through Thursday from 9:30 AM to 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at (703) 308-2383. The phone number for the organization where this application or proceeding is assigned is (703) 305-5900.

The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9310 for regular communications and (703) 872-9311 for After-Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

st/5 May 2003

A handwritten signature in cursive script, reading "Amy Lynn Foster". The signature is written in dark ink and is positioned below the date line.